

# The Ballarat Naturalist

March 2013



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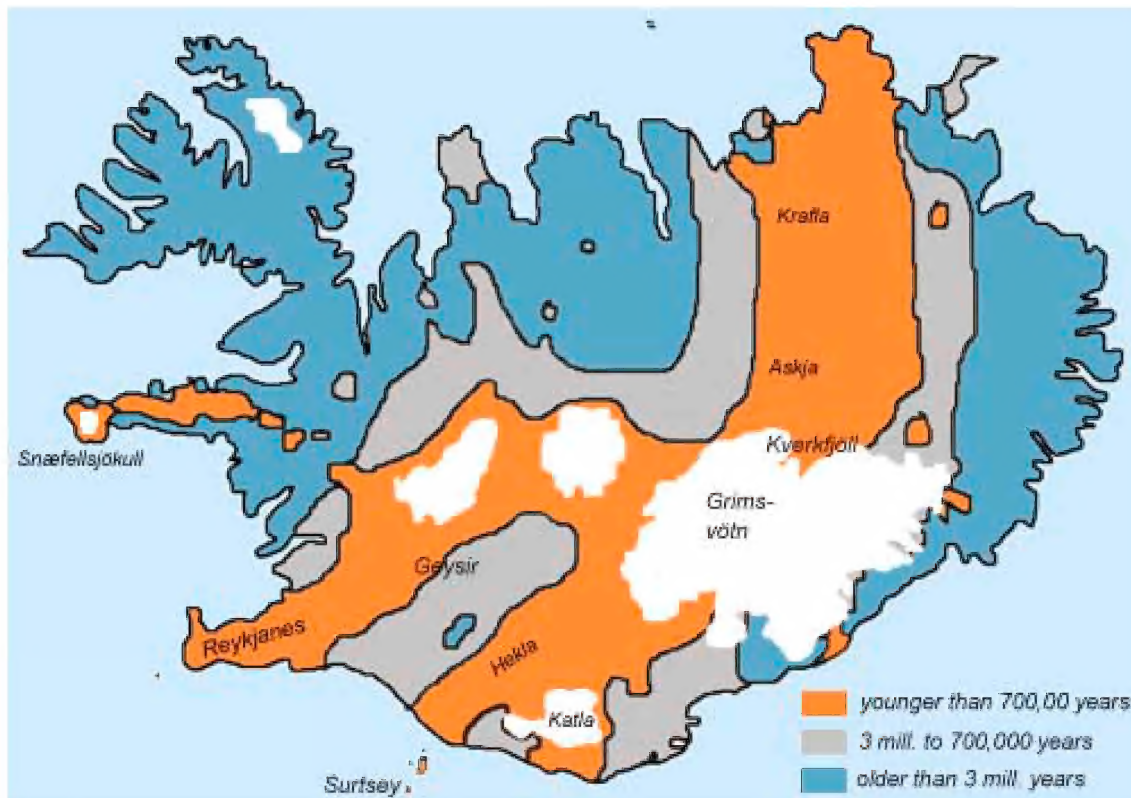
## **Vikings, Volcanoes and Ice – the making of Iceland**

Speaker: Carol Hall

At the end of a journey by ship to Spitsbergen and eastern Greenland, Carol landed in Iceland where she undertook a tour which took her off the beaten track in addition to visiting the usual tourist locations. Using maps and satellite photos Carol pointed out the main features of the geography of this volcanic country of 320,000 people, 118,000 of whom live in the capital Reykjavik. Iceland lies just south of the Arctic Circle. Four permanent ice sheets cover the highest volcanoes; the western side of the island is milder and receives less snow than the eastern thanks to the remnants of the Gulf Stream. Here the capital is located and most of the arable land is found. Fishing is still a mainstay of the economy, with IT and tourism growing in importance. Aluminium smelting was introduced to help diversification, with two smelters near Reykjavik and one on the east coast, where deep water ports allow ships to bring alumina in from Australia, among other countries. Rushing rivers provide large quantities of cheap electricity. The population is highly literate and supports a University, a symphony orchestra and other cultural groups. However it suffered greatly in the 2008 financial crisis.

Iceland is entirely volcanic. Located on the diverging plate boundaries of the American and Eurasian plates, it is splitting apart at about the rate your fingernails grow, with extra magma provided by a nearby mantle plume or “hot spot”. Therefore the extreme east and west margins of the country are the oldest at about 20 million years. Seismic and volcanic activity take place in two rifting zones of which the easterly one is currently the most active. Iceland is 70% basalt; other rocks include rhyolite, ignimbrite, palagonite and obsidian. Eruptions eject lava, gases and tephra (ash, volcanic bombs) which add to the height of the land. Carol showed photos of Thingvellir (“Parliament Fields”) to illustrate both a typical rifting zone, with fault scarps and fissures full of water, and the early history of Viking settlement where this locality was the site of the first Parliament in

930AD, Viking settlement having begun around 870AD.



**Map of Iceland showing the different ages of areas of the country**

However, the volcano Eyafjallajökull erupted in the April prior to Carol's visit in August 2012 and she monitored the popular and scientific reports which were on the web daily. Using photos from these sources she explained how and why the eruption occurred and what impact it had on the landscape – the melting icecap caused floods downstream, columns of ash rose 30,000 ft into the atmosphere and caused havoc in European airspace as airlines panicked and grounded all aircraft for several days – prevailing winds blew the ash eastwards. Farms were covered with a dusting of ash, forcing the evacuation of livestock until fields could be ploughed and grass re-sown. Heavy rain on the glacier saturated the ash layer on the ice sheet and triggered slides of volcanic mud downslope to the rivers with such force that channel banks were re-configured.

Geothermal activity includes geysirs – periodic eruptions of superheated water from vents where water is heated by the underlying magma. The original Geysir which gave its name to this phenomenon has died down as the vent became choked, but nearby Strokkur shoots into the air every 2-3 minutes. Other areas have boiling mudpools and concentrations of sulphur. Superheated steam under pressure is harnessed for electricity



generation; hot water is fed by pipeline to individual farms, and to towns for district heating – Reykjavik is largely heated by such a system.

Carol's tour took her through the centre of Iceland away from the bitumen Ring Road near Myvatn and across the central lava desert which is windy and bleak, crossing through shallow rivers, and with hillsides covered by vivid green mosses and tundra-like plants such as dwarf willow and saxifrage. Arriving at the south coast she visited waterfalls 60m high



**Photo:** Skogarsfoss waterfall

falling over the accumulated layers of basalt, and drove over extensive “sandur” – outwash plains formed from the meltwater floods which occur from time to time and spread out their load of boulders and pebbles to form coastal plains. These cannot be used for farming, are windy (warnings are displayed on roadsides) and they create a coastline whose position fluctuates. No deepwater harbours here! Skeiðarársandur was a formidable obstacle to travellers along the south coast in early times. A popular tourist location is Jökulsárlón, a lagoon where mini icebergs float as they break off one of the glaciers flowing from the largest icecap Vatnajökull, and make their way out to the sea. An amphibious vehicle takes tourists out among the lumps of ice!

Many of Iceland's farms grow grass for hay and silage, with sheep for both meat and wool. Lamb dishes as well as fish were always on the menu, and Carol's group often stayed at hotels built by the farms in order to diversify their sources of income. Icelandic jumpers made from the super soft and wonderfully warm wool are a famous product! Icelandic ponies roam around many farms and riding is often offered as an attraction to visitors.

With maps, diagrams, satellite images and her own photos, Carol as geographer provided a comprehensive picture of this fascinating country.

Carol Hall.

### \*\*\* Booking for RBG Cranbourne Excursion \*\*\*

FNCB is planning a bus trip to Royal Botanic Gardens Cranbourne on Sunday 5 May 2013. We will travel on a seat-belt-equipped, air-conditioned coach from a local bus line. Cost of the bus is \$25 per person.

The bus will leave from Primary Industries Training Centre; cnr Gillies & Gregory St, Wendouree at 9am and return at 5.30pm. In Ballan the pick-up is at 9.30 am behind the Mechanics Hall in Stieglitz Street (near the Senior Citizens Building).

At the Gardens there is a café that offers meals and snacks or you may pack your own lunch to eat in the garden or picnic area.

We will be at the gardens from about 11am until 3pm. There is plenty to see for the independent observer in the 15-hectare Australian garden and walking tracks in the surrounding woodland. Further information is available on the website [www.rbg.vic.gov.au/rbg-cranbourne](http://www.rbg.vic.gov.au/rbg-cranbourne). Guided group tours are available at 2pm but must be booked and paid when booking a seat on the bus. Cost is \$5.50. Entry to the gardens is free.

**Tour 1: *Flora Australis*** Join one of our knowledgeable guides on a fascinating tour of the Australian Garden. Discover how Australian plants have evolved and adapted over millions of years and how human interaction with plants has changed over time.

**Tour 2: *Plants for your place*** If you've ever wanted to learn more about using Australian plants in your garden, then this is the tour for you! Join our experienced guide on a journey from the Red Centre to the Eastern Seaboard picking up expert tips and tricks to help you find the best Aussie plants that are right for your place.

Payment is due by Friday 5 April to Field Naturalists Club of Ballarat by cheque or direct payment to Bendigo Bank BSB 633108, account no 1191 12290. If you are paying by direct transfer, please put your name on the reference line and send an email to let us know that you have paid and which guided tour (if any) you have paid for.

Booking Form (*FNCB form also available at meeting and via email*)

Name (1) .....

Name (2) .....

Bus cost \$25 per person                      \$ .....

Guided tour Optional; choose ONE only

Tour 1: *Flora Australis*                      \$ .....

Tour 2: *Plants for your place*                      \$ .....

Total .....



## Western Treatment Plant Excursion

Travelling south of Ballan the convoy came to a halt at Mt Wallace. Two Brolgas were seen on a swamp a couple hundred metres east of the road. While watching the Brolgas we noticed two Wedge-tailed Eagles perched on a fence.

On arrival at Western Treatment Plant we first visited the T-Section Lagoons. A large flock of Red-necked Stints were resting on the dry edge while others were feeding on the wet mud. Curlew and Sharp-tailed Sandpiper were feeding in slightly deeper water. Further out from the edge were Black-winged Stilt and Red-necked Avocet. On the pond opposite a long-legged Marsh Sandpiper was seen. A Little Raven was feeding on the carcase of an Australian Shelduck. Shelduck and Grey Teal were the most common duck as they continued to be seen throughout the day.

We stopped to see four Cape Barren Goose. Red-kneed Dotterel were hiding in rushes at the edge of a pond. Two Baillon's Crake were moving in and out of a clump of cumbungi. Glossy Ibis were seen as we headed back to the gate.

In the Western Lagoon area we added Little Black and Little Pied Cormorant, Little Egret and Pied Oystercatcher to the list. Further away, in The Spit Nature Conservation Reserve, we could see Pelican, Yellow-billed and Royal Spoonbill through telescopes. A group of four Brolgas were grazing in adjoining pasture.

The bird list continued to grow at Kirk Point where we had lunch. Ken spotted Pacific Golden Plover among the glasswort vegetation. We could see several heads above the vegetation, and occasionally a bird moved to show some its body. After most people had left something spooked the birds and we counted a flock of 13 flying away. Resting on the rocks were Pied Cormorant, Crested and Common Tern. Superb Fairy-wren were seen among the saltbush.

After lunch we re-entered WTP and saw Australian Spotted Crake on the edges of a muddy pond. After crossing Little River a Spotted Harrier was seen flying low over swampy vegetation. Large numbers of Australian Shelduck were on the roads and when we stopped the Pink-eared Duck drew our attention with their rapid, whistled twittering. White-winged Black Tern were flying around and identified when we had a look at the distinctive tear-drop shaped black patch behind the eye of a resting on a mud bank.

Heading back along the coast we added Great Cormorant and Australasian

Darter. The weather warmed up in the afternoon but a cool sea breeze kept it comfortable. We saw a total of 69 species . (See table below.)

John Gregurke

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**Bird list for Western Treatment Plant Feb 3, 2013**

Australasian Darter	Crested Tern	Pied Cormorant
Australasian Grebe	Curlew Sandpiper	Pink-Eared Duck
Australasian Pipit	Eastern Great Egret	Purple Swamphen
Australasian Shoveler	Eurasian Coot	Red-capped Plover
Australian Magpie	Glossy Ibis	Red-kneed Dotterel
Australian Pelican	Golden-headed	Red-necked Avocet
Australian Pied	Cisticola	Red-necked Stint
Oystercatcher	Great Cormorant	Royal Spoonbill
Australian Reed-Warbler	Great Crested Grebe	Sharp-tailed
Australian Shelduck	Grey Teal	Sandpiper
Australian Spotted Crake	Hardhead	Silver Gull
Australian White Ibis	Hoary-headed Grebe	Spotted Harrier
Baillon's Crake	House Sparrow	Superb Fairy-Wren
Black Swan	Little Black Cormorant	Swamp Harrier
Black-shouldered Kite	Little Egret	Welcome Swallow
Black-winged Stilt	Little Grassbird	Whiskered Tern
Blue-billed Duck	Little Pied Cormorant	Whistling Kite
Brolga	Little Raven	White-faced Heron
Brown Falcon	Magpie-lark	White-fronted Chat
Cape Barren Goose	Marsh Sandpiper	White-winged
Chestnut Teal	Masked Lapwing	Black Tern
Common Starling	Musk Duck	Willie Wagtail
Common Tern	Pacific Black Duck	Yellow-billed
Crested Pigeon	Pacific Golden Plover	Spoonbill
	Pacific Gull	

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## **Excerpts from Club Meeting Minutes February 1, 2013**

**Friends of Canadian Corridor:** JG attended a meeting of concerned residents re the future use of former Hancock pine plantations between Eureka St, Mt Clear and Yankee Flat Rd which have been handed back to DSE but they offered it to Dept of Treasury & Finance who would likely sell it off to developers. Friends are enlisting help to retain the area as public open space for recreation. A forum is being held by the Friends on Feb 14 at the Mt Clear Earth Science Centre 7-8.30pm. John Gregurke has provided the group with a plant list and a bird list is in preparation.

JG attended a meeting in Geelong re the future organisation of ANN; there will be a meeting at FNCV HQ Blackburn on Sat April 13<sup>th</sup> with conferencing facilities enabling distant groups to participate.

Gavin Cerini updated us on the progress of his concerns about the Carngham Rd wetland which has been zoned for housing. He invited members to join him in his efforts. Ken Hammond and John Petheram agreed to work with Gavin, and Peter Muller indicated an interest also.

### **General Business**

March excursion to Avoca area re *E. pyreneae*.

Next month's AGM; theme for images "Patterns in Nature". Slide projector to be provided.

### **Show & Tell/Field Reports**

1.2.13 Claire Dalman reported a pair of Brolgas near Lake Burrumbeet but was unable to see the two chicks known to have hatched.

15.01.13 John Gregurke at Lake Burrumbeet Caravan Park saw 3 Little Corellas with a flock of >100 Long-billed Corellas – a new bird for the Lake = 147 species.

Jan '13 Jeanette Mitchell at Durham Lead saw two Nightjar Owls resting near to the house.

Jan '13 Margaret Thomas at Nerrina-Black Hill saw a flock of ~20 Galahs eating grass seeds on nature strip. Eastern Spinebills, New Holland Honeyeaters and small groups of ? Thornbills/Scrub Wrens in the bird bath. Eating her apricots were Crimson Rosellas, Blackbirds, Wattlebirds and a large Brushtail Possum.

# CALENDAR 2013

## March

- Fri 1            *Patterns in Nature* - AGM and Members' Images  
Sun 3            *Pyrenees Forest & E. pyreneae* - J. Higgins & Thurgoods

## April

- Fri 5            Committee meeting at PITS 6pm -before Friday meeting.  
Fri 5            *Connecting people to the Landscape* - Gib Wettenhal  
Sun 7            *Linton Area, TFN Block, Clarksdale* - Members

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## Committee

President..... Peter Dalman  
Vice –President .... Fran Hanrahan  
Secretary..... Carol Hall  
Treasurer ..... Les Hanrahan

Claire Dalman.....	Val Hocking
John Gregurke.....	John Mildren
Elsbeth Swan .....	

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**Club email:** [ballaratfnc@gmail.com](mailto:ballaratfnc@gmail.com)

**Meetings** are held at the Primary Industries Training Centre, cnr Gillies and Gregory Sts, on the first Friday of the month at 7.30pm..

**Excursions:** Leave from the carpark at the Primary Industries Training Centre, cnr Gillies and Gregory Sts. at 9.30 am, unless otherwise advised.

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